USE OF NICOTINE AND NNK METABOLITES TO ASSESS EXPOSURE TO CIGARETTE SMOKE CONSTITUENTS: PILOT STUDY RESULTS

R.D. Kinser[1], B.L. Nelson[1], H.-J. Roethig[1], R.-A. Walk[1], J. Oey[1], A.R. Tricker[2], D.E. Leyden[3]

[1]*Philip Morris U.S.A., Richmond, VA;* [2]*Philip Morris Products SA, Neuchatel, Switzerland;* [3]*Hartfield, VA, USA*

This pilot study was conducted to aid in the development of the experimental design for a study of exposure of adult smokers in the U.S. to selected cigarette smoke constituents. The study included 69 adult smokers of any brand of 3.0 – 6.9 mg tar yield (FTC method) manufactured cigarettes and 66 non-smokers. For assessment of exposure levels of nicotine, its metabolites, cotinine, *trans*-3'-hydroxycotinine, nicotine-*N*-glucuronides, cotinine-*N*-glucuronides, and *trans*-3'-hydroxycotinine-*O*-glucuronide were measured in 24-hr urine samples on 3 occasions. 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) metabolites 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol (NNAL) and 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol glucuronide (NNAL-glucuronide) were measured in the same urine samples. Results from the study will be presented, including smoker/non-smoker intake ratios and intra/inter-individual variation.

Source: https://www.industrydocuments.ucsf.edu/docs/qtpj0001